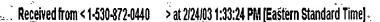
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- (a) transforming a yeast organism with an expression vehicle comprising a promoter sequence for yeast alpha factor operably connected to a DNA sequence encoding a protein heterologous to the yeast organism;
 - (b) culturing the transformed organism; and
 - (c) recovering the protein from the culture.
- --48. A process for obtaining a protein heterologous to yeast as product of yeast expression, which process comprises:
- (a) transforming a yeast organism with an expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably connected in translation reading frame to a DNA sequence encoding a protein heterologous to the yeast organism;
 - (b) culturing the transformed organism; and
 - (c) recovering the protein from the culture.
- --49. A process for obtaining a protein heterologous to yeast as a product of yeast expression, processing and secretion, which process comprises:
- (a) transforming a yeast organism with an expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably connected in translation reading frame to a DNA sequence encoding a protein heterologous to the yeast organism;
 - (b) culturing the transformed organism; and
 - (c) recovering the protein from the culture .--
- a--50. A process for secreting a protein heterologous to yeast into the supporting medium, which process comprises.
- (a) transforming a yeast organism with an expression wehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha-factor operably connected in translation reading frame to a DNA sequence encoding a protein heterologous to the yeast organism;
 - (b) culturing the transformed organism; and
 - (c) recovering the protein from the culture. --



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- --51. The process of Claim 50, wherein said DNA sequences are under the control of the alpha factor promoter. --
- --52. A yeast expression vehicle comprising a DNA sequence of the promoter for yeast alpha factor operably connected to a DNA sequence encoding a protein heterologous to the yeast organism.--
- ---53. The expression vehicle of Claim 52, further comprising a DNA sequence encoding a pre-pro pertide of yeast alpha factor operably linked in translation reading frame upstream to the DNA sequence encoding a mature protein heterologous to the yeast organism.
- --54. A yeast expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably linked in translation reading frame to a DNA sequence encoding a mature protein the heterologous to the yeast organism.--
- --55. The expression vehicle of Claim 52, wherein the DNA encoding the heterologous protein encodes a protein selected from the group consisting of human interferon, bovine interferon, tissue plasminogen activator, and renning--
- encoding the heterologous protein encodes a protein selected from the group consisting of human interferon, bovine interferon, tissue plasminogen activator, and rennin.--
- encoding the heterologous protein encodes a protein selected from the group consisting of human interferon, bovine interferon, tissue of plasminogen activator, and rennin.

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- --58. A yeast organism transformed by the expression vehicle of Claim 52.--
- --59. A yeast organism transformed by the expression vehicle of Claim 53.--
- 2-60. A yeast organism transformed by the expression vehicle of Claim 54.--
 - --61. The protein produced by the process of Claim 47.--
 - --62. The protein produced by the process of Claim 48. -- --
 - --63. The protein produced by the process of Claim 49.42
 - --64. The protein produced by the process of Claim 50 .--

REMARKS

Claims 47-64 are presented herein for examination.

All: pending claims_are canceled without prejudice. to file a continuating application directed thereto.

Claims 47-64 are based on, and supported by, the claims that were pending in U.S. Application Serial. No. 06/488,323, filed April 25, 1983, which is the first application upon which the present application claims priority.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

For the Examiner's convenience, a clean copy of the currently pendring claims is attached hereto